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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/955,801 | 09/19/2001 | Rajneesh Taneja | ABB01259P00210US (6842.US | 1051 |

7590 09/20/2007

TAP Pharmaceutical Products, Inc.
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| EXAMINER | |
|---|---|
| SHEIKH, HUMERA N | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 1615 | |

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| 09/20/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/955,801 | TANEJA ET AL. | |
| | Examiner | Art Unit | |
| | Humera N. Sheikh | 1615 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *11 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1,3-17 and 19-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-17 and 19-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### Status of the Application

Receipt of the Response after Non-Final Office Action, the Amendment and Applicant's Arguments/Remarks, all filed 07/11/07 is acknowledged.

Applicant has overcome the following rejection(s) by virtue of the amendment and/or persuasive remarks: (1) The 35 U.S.C. 103(a) rejection of claims 1, 3-17 and 19-21 as being unpatentable over Kouchiwa *et al.* (EP 0 264 259) in view of Chen *et al.* (U.S. Pat. No. 6,544,556 B1) has been withdrawn; (2) The 35 U.S.C. 103(a) rejection of claims 1, 3-17 and 19-21 as being unpatentable over GB 747,293 in view of Chen *et al.* (U.S. Pat. No. 6,544,556 B1) has been withdrawn; (3) The 35 U.S.C. 103(a) rejection of claims 1, 3-17 and 19-21 as being unpatentable over Phillips I (U.S. Pat. No. 5,840,737) in view of Phillips II (U.S. Pat. No. 6,489,346) has been withdrawn

Claims 1, 3-17 and 19-21 are pending in this action. Claims 1, 9-11 and 14 have been amended. Claims 2 and 18 have been previously cancelled. Claims 1, 3-17 and 19-21 remain rejected.

### *Claim Rejections - 35 USC § 102*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 1, 3-17 and 19-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Phillips (U.S. Pat. No. 6,489,346).**

The instant invention is drawn to a solid non-enterically coated pharmaceutical formulation comprising: (a) a therapeutically effective amount of at least one acid labile pharmaceutical compound; and (b) a pharmaceutically acceptable protectant comprising (i) a water-soluble acid neutralizer; and (ii) a water-insoluble acid neutralizer.

**Phillips II ('346)** teaches a non-enteric coated solid pharmaceutical composition comprising a non-enteric coated proton pump inhibitor in a pharmaceutically acceptable carrier and at least one buffering agent and a method for treating acid-related gastrointestinal disorders comprising administering to a patient the non-enteric coated solid pharmaceutical composition. The pharmaceutically acceptable carrier comprises a bicarbonate salt of a Group IA metal and a carbonate salt of a Group IA metal (see Abstract; Claims); (col. 11, lines 36-44); (col. 13, line 47 – col. 14, line 26).

Phillips II teaches that mixtures of the buffering agents can be utilized (column 13, lines 47-53). Suitable buffering agents disclosed include sodium bicarbonate, potassium bicarbonate, magnesium hydroxide, aluminum hydroxide, aluminum hydroxide/sodium bicarbonate co-precipitate, sodium carbonate and calcium carbonate (see col. 13, line 63 – col. 14, line 14); (col. 17, lines 58-60).

The non-enteric proton pump inhibitors include a substituted benzimidazole of lansoprazole or an enantiomer, isomer, derivative, free base or salts thereof (see Abstract).

The instant invention is anticipated by Phillips.

*Claim Rejections - 35 USC § 103*

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**Claims 1, 3-17 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Phillips (U.S. Pat. No. 6,489,346).**

The instant invention is drawn to a solid non-enterically coated pharmaceutical formulation comprising: (a) a therapeutically effective amount of at least one acid labile pharmaceutical compound; and (b) a pharmaceutically acceptable protectant comprising (i) a water-soluble acid neutralizer; and (ii) a water-insoluble acid neutralizer.

**Phillips ('346)** teaches a non-enteric coated solid pharmaceutical composition comprising a non-enteric coated proton pump inhibitor in a pharmaceutically acceptable carrier and at least one buffering agent and a method for treating acid-related gastrointestinal disorders comprising administering to a patient the non-enteric coated solid pharmaceutical composition. The pharmaceutically acceptable carrier comprises a bicarbonate salt of a Group IA metal and a carbonate salt of a Group IA metal (see Abstract; Claims); (col. 11, lines 36-44); (col. 13, line 47 – col. 14, line 26).

Phillips teaches that mixtures of the buffering agents can be utilized (column 13, lines 47-53). Suitable buffering agents disclosed include sodium bicarbonate, potassium bicarbonate, magnesium hydroxide, aluminum hydroxide, aluminum hydroxide/sodium bicarbonate co-

precipitate, sodium carbonate and calcium carbonate (see col. 13, line 63 – col. 14, line 14); (col. 17, lines 58-60).

The non-enteric proton pump inhibitors include a substituted benzimidazole of lansoprazole or an enantiomer, isomer, derivative, free base or salts thereof (see Abstract).

The instant invention, when taken as a whole, would have been *prima facie* obvious given the teachings of Phillips. Phillips teach a non-enterically coated formulation that uses both water-soluble as well as water-insoluble acid neutralizers, that function to protect the PPI from acid degradation. Thus, the bioavailability of the proton pump inhibitor is preserved to provide for the effective treatment and/or prevention of gastric acid related disorders.

***Pertinent Art:***

The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure:

US Patent No. 4,786,505 (Lovgren *et al.*) 11-1988

***Response to Arguments***

Applicant's arguments filed 07/11/07 have been fully considered but were not found persuasive.

- **35 U.S.C. §102(e) rejection of claims 1, 3-17 and 19-21 over Phillips II (US 6,489,346):**

Applicant argued, "The Phillips II reference merely provides a generic laundry list of possible buffers but in no way discloses or even suggests that the combination of (i) a water-

soluble acid neutralizer and (ii) a water-insoluble acid neutralizer can be used to achieve the protectant qualities of the combined acid neutralizers. In particular, the Phillips II reference states that "[A]lthough sodium bicarbonate is the preferred buffering agent employed in the present invention to protect the PPI against acid degradation, many other weak and strong bases (and mixtures thereof) can be utilized" (col. 13, lines 47-50). Furthermore, Phillips II discloses that any weak or strong base, individually or in mixtures, administered when formulated or delivered, (e.g. before, during or after), the PPI, can be used to preserve the bioavailability of the PPI. (col. 13, lines 50-56). A generic listing of strong and weak bases that may be used as possible buffers is then disclosed (col. 13, lines 63 through col. 14, line 14). The Phillips II reference fails to disclose or suggest the specific combination of both a water-soluble acid neutralizer and water-insoluble acid neutralizer for use as a pharmaceutically acceptable protectant."

Applicant's arguments have been fully considered, but were not persuasive. Phillips discloses the use of buffering agents such as preferred sodium bicarbonate as well as other weak and strong bases and mixtures thereof that function to protect the PPI against acid degradation. Thus, Applicant's argument that the reference "fails to disclose the specific combination of both a water-soluble and water-insoluble acid neutralizer" was not persuasive since the selective list of buffering agents that can be employed in the pharmaceutical composition includes both water-soluble and water-insoluble buffering agents. The reference clearly provides for the use of at least one buffering agent and mixtures of buffering agents, of which water-soluble and water-insoluble acid neutralizers are disclosed. Thus, Applicant's arguments were not persuasive. The §102(e) rejection has been maintained herein.

- **35 U.S.C. §103(a) rejection of claims 1, 3-17 and 19-21 over Kouchiwa et al. (EP 0264259) in view of Chen et al. (USPN 6,544,556) :**

Applicant argued, "The invention as disclosed in the '259 patent is directed to a pharmaceutical composition containing dihydropyridines for the treatment of circulatory diseases. There is no mention of an acid-labile compound throughout the '259 patent, nor is there any suggestion of the use of acid neutralizing compounds, either individually or in combination, as required by the present invention. The '259 patent merely suggests the incorporation of

sodium carbonate, sodium hydrogen carbonate, calcium carbonate and/or calcium carbonate but provides no underlying basis except to stabilize the compound. There is no suggestion or reference to neutralizing acid or treating any sort of gastric acid-related diseases within the '259 patent. Moreover, the invention as disclosed in Chen et al. is specifically directed to an oral dosage form comprising an therapeutically effective amount of an NSAID and a PPI, wherein the PPI is enterically coated (see col.. 3, line 55-61). The focus of Chen et al. lies in protecting the PPI from coming in contact with acidic conditions, and accordingly focuses on providing an enteric coating around the PPI. In view of the claims as presently amended, the present invention specifically provides a non-enterically coated formulation that includes the combination of (i) a water- soluble acid neutralizer and (ii) a water-insoluble acid neutralizer. Chen et al. specifically requires an enteric coating, at least in association with the PPI, in order to sufficiently protect the PPI from acidic conditions. Thus, because Chen et al. require the use of an enteric coating, Chen et al. teach away from the present invention through the use of such a coating. In contrast, in the present invention, the combination of the (i) water-soluble acid neutralizer and (ii) water-insoluble acid neutralizer as required by the present invention serves to protect the acid-labile compound from the acidic environment of the stomach. The combination of the acid neutralizers eliminates the need for an enteric coating, accordingly rendering the primary purposes of the Chen et al. invention moot."

Applicant's arguments have been considered and were found persuasive. Accordingly, the 103(a) rejection over '259 in view of '556 has been withdrawn.

- **35 U.S.C. §103(a) rejection of claims 1, 3-17 and 19-21 over GB 747,293 in view of Chen et al. (USPN 6,544,556) :**

Applicant argued, "As discussed previously herein, Chen et al. discloses enterically coated compounds, wherein the enteric coating is used to protect the PPI from acid degeneration. In contrast, the present invention does not require the use of an enteric coating. Accordingly, Applicants submit that there simply is no motivation or suggestion to combine Chen et al. with the '293 patent, since Chen et al. employs an altogether different method to protect a proton pump inhibitor. Moreover, the '293 patent simply does not teach the combination of a water-soluble acid neutralizer and water-insoluble acid neutralizer. Chen et al. teaches a solid enterically coated proton pump inhibitor, whereas the '293 patent teaches a liquid composition that includes generic acid neutralizers. Accordingly, there is no motivation or even suggestion to combine these two references to achieve the present invention of a solid non-enterically coated pharmaceutical formulation comprising an acid-labile compound and a combination of a water-soluble acid neutralizer and a water-insoluble acid neutralizer."

Applicant's arguments have been considered and were found persuasive. Accordingly, the 103(a) rejection over '293 in view of '556 has been withdrawn.

- **35 U.S.C. §103(a) rejection of claims 1, 3-17 and 19-21 over Phillips I (US 5,840,737) in view of Phillips II (US 6,489,346):**

Applicant argued, "The Phillips I reference specifically provides an enterically-coated formulation whereas the Phillips II reference provides a non-enterically coated formation. Accordingly, each of these proposed inventions are distinct from one another and one skilled in the art would not be motivated to combine these references based on the underlying opposite principles. Moreover, as previously suggested, Phillips II merely provides a laundry list of weak and strong bases that may be used as buffers but does not specifically teach the combination of (i) a water-soluble acid neutralizer and (ii) a water-insoluble acid neutralizer. Accordingly, there is not motivation to combine these references to achieve the present invention."

Applicant's arguments have been considered and were found persuasive. Accordingly, the 103(a) rejection over '737 in view of '346 has been withdrawn.

## *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

--No claims are allowed at this time.

**Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Humera N. Sheikh whose telephone number is (571) 272-0604. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday during regular business hours. (Wednesdays - Telework).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HUMERA N SHEIKH
PRIMARY EXAMINER
Art Unit 1615

September 15, 2007